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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/674,289      | 10/30/2000  | Tapani Vuorinen      | LAIN-033            | 6903             |

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EXAMINER

ALVO, MARC S

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1731

DATE MAILED: 01/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/674,289

Applicant(s)

VUORINEN, TAPANI

Examiner

Steve Alvo

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-14 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over BATES with or without HASSI et al.

BATES teaches forming a fiber suspension, adding component modifying the properties of the fibers (resin, and sizing agent, e.g. CMC or other celluloses) and drying the fiber material, e.g. paper machine or press, see col. 1, lines 15-24 and claim 1. It would have been obvious to add the CMC of BATES under alkaline conditions as BATES teaches the pH to be greater than 5.5 and preferably 7.0 to 9.0 (column 5, lines 39-44). It would have been obvious to the routineer that the sizing agent also acts to bond the fibers as BATES teaches that the modifying agents increase the paper strength. If this is not obvious then HASSI teaches that sizing agents such as CMC also act as bonding agents.

Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over BATES as applied to claim 1 above, and further in view of HASSI.

HASSI teaches that sizing agents such as CMC could be added during an alkaline peroxide bleach stage. It would have been obvious to add the modifying agents (sizing agents) of BATES during a peroxide bleach stage as such is taught by HASSI.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over BATES with or without HASSI as applied to claim 1 above, and further in view of RHA et al.

RHA et al teaches adding sizing agents, e.g. CMC, to paper pulp suspensions and teaches that the sizing agent can be added during the beating stage. It would have been obvious to the artisan to add the sizing agent of BATES et al during the beating stage as taught by RHA et al.

Claims 5-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "preferably" makes the scope of the claims indefinite. For example, is claim 5 limited to "at least 10%" or "20%". Correction is required.

Restriction to one of the following inventions is required under 35 U.S.C. § 121:

- I. Claims 1-20, drawn to a pulping process, classified in Class 162, subclass 72.
- II. Claim 21, drawn to a paper pulp, classified in Class 162, subclass 100.

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product of Group II could be made by other processes such as alcohol pulping processes.

Because these inventions are distinct for the reasons given above and have required a separate status in the art as shown by their different classification restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Keiko Tanaka Kubovik on January 14, 2002 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-20. Affirmation of this election must be made by applicant in replying to this Office action. Claim

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21 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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Any inquiry concerning this communication or earlier communications from the **primary examiner** should be directed to **Steve Alvo** whose telephone number is (703) 308-2048. The Examiner can normally be reached on Monday - Friday from 6:00 AM - 2:30 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Stanley Silverman, can be reached on 703-308-3837.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Group receptionist** whose telephone number is 703-308-0661.

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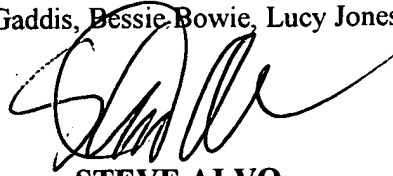
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MSA  
1/14/02



**STEVE ALVO**  
**PRIMARY EXAMINER**  
**ART UNIT 1731**